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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,240	02/06/2004	Richard E. Waitkus JR.	016093.0118	9102
23640	7590	08/28/2006	EXAMINER LAU, TUNG S	
BAKER BOTTS, LLP 910 LOUISIANA HOUSTON, TX 77002-4995			ART UNIT 2863	PAPER NUMBER

DATE MAILED: 08/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/774,240

Applicant(s)

WAITKUS, RICHARD E.

Examiner

Tung S. Lau

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/24/2006 has been entered.

### **Arrangement of the Specification**

2. As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:
  - (a) TITLE OF THE INVENTION.
  - (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
  - (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
  - (d) THE NAMES OF THE PARTIES TO A AGREEMENT
  - (e) INCORPORATION-BY-REFERENCE OF JOINT RESEARCH MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings"

(37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or

REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a).

"Microfiche Appendices" were accepted by the Office until March 1, 2001.)

(f) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(g) BRIEF SUMMARY OF THE INVENTION.

(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(i) DETAILED DESCRIPTION OF THE INVENTION.

(j) CLAIM OR CLAIMS (commencing on a separate sheet).

(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A

"Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

***Specification Objection***

3. The abstract of the disclosure is objected to because it contains the title of the invention. The heading on the abstract should only read 'Abstract' or 'Abstract of the Disclosure'. Correction is required. See MPEP 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. See 37 CFR 1.72(b) and MPEP § 608.01(b). The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," "means" and "said," etc, should be avoided

#### ***Claim Rejections - 35 USC § 101***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 101 that form the basis for the rejections under this section made in this Office action:

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1, 3-32 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

In claims 1, 3-14, a material management system including determining an optimal time to empty waste container using different factors. In claims 15-23, 29 and 32, a computerized method for scheduling a pick up time to remove of one or more waste containers including determining fullness of the container using different factor automatically schedule a waste container removal optimal time. Claims 24-28 and 30-31 a computer program stored on a tangible storage medium for use in scheduling a pick up time to remove one or more waste container using different factors to determine a schedule the removal of the waste container for optimal time. These claims appear to merely describe mathematical and data calculation and lack of concrete and tangible result. The practical application of the claimed invention cannot be realized until the information determined is conveyed to the user. For the result to be tangible it would need to output to a user or stored for later use. Hence the claims are treated as nonstatutory functional descriptive material.

An example of a concrete, tangible useful result may include displaying, storing for further use, generating a control signal etc. of the determining. The applicant should review the disclosure to determine what type of tangible result is being carried out in this instant application and such limitation be included in the claim.

For further guidance see (See MPEP § 2106 and OG Notices: 22 November 2005, Guidelines for Subject Matter Eligibility,

<http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm>

See MPEP 2106 IV B (1) (b).

The claimed invention as a whole must accomplish a practical application. That is, it must produce a “useful, concrete and tangible result.” *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02, (“the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces ‘a useful, concrete and tangible result’ – a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades.”).

The purpose of this requirement is to limit patent protection to inventions that possess a certain level of “real world” value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (*Brenner v. Manson*, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96); *In re Ziegler*, 992, F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)).

A process that consists solely of the manipulation of an abstract idea is not concrete or tangible. See *In re Warmerdam*, 33 F.3d 1354, 1360, 31 USPQ2d 1754, 1759 (Fed. Cir. 1994). See also *Schrader*, 22 F.3d at 295, 30 USPQ2d at 1459. Nor can one patent “a novel and useful mathematical formula,” *Flook*, 437 U.S. at 585, 198 USPQ at 195; *electromagnetism or steam power*, *O’Reilly v. Morse*, 56 U.S. (15 How.) 62, 113-114 (1853). Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the

strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. O'Reilly, 56 U.S. (15 How.) at 112-14.

The Federal Circuit held that the mere manipulations of abstract ideas are not patentable. Schrader, 22 F.3d at 292-93, 30 USPQ2d at 1457-58. If a claimed process manipulates only numbers, abstract concepts or ideas, or signals representing any of the foregoing, the claim is not being applied to appropriate subject matter. Schrader, 22 F.3d at 294-95, 30 USPQ2d at 1458-59. The Federal Circuit also recognizes that the fact that a nonstatutory method is carried out on a programmed computer does not make the process claim statutory. Grams, 888 F.2d at 841, 12 USPQ2d at 1829(claim 16 ruled nonstatutory even though it was a computer- implemented process).

A "composition of matter" "covers all compositions of two or more substances and includes all composite articles, whether they be results of chemical union, or of mechanical mixture, or whether they be gases, fluids, powders or solids." Shell Development Co. v. Watson, 149 F. Supp. 279, 280, 113 USPQ 265, 266 (D.D.C. 1957), aff'd, 252 F.2d 861, 116 USPQ 428 (D.C. Cir. 1958). A claimed signal is not matter, but a form of energy, and therefore is not a composition of matter.

A manufacture is also defined as the residual class of product. 1 Chisum, § 1.02[3] (citing W. Robinson, The Law of Patents for Useful Inventions 270 (1890)) 56. A product is a tangible physical article or object, some form of matter, which a signal is not. That the other two product classes, machine and



composition of matter, require physical matter is evidence that a manufacture was also intended to require physical matter. A signal, a form of energy, does not fall within either of the two definitions of manufacture. Thus, a signal does not fall within one of the four statutory classes of § 101. These interim guidelines propose that such signal claims are ineligible for patent protection because they do not fall within any of the four statutory classes of § 101. (See MPEP § 2106 and OG Notices: 22 November 2005, Guidelines for Subject Matter Eligibility, <http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm> ).

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

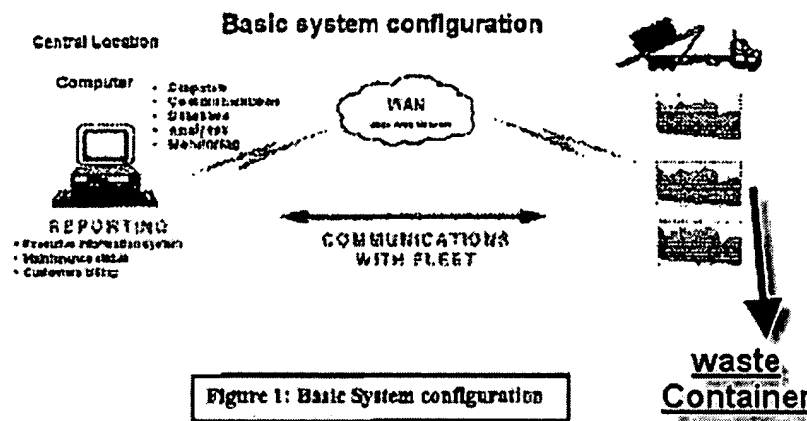
Claims 1, 15, 24, 3, 4, 5, 8, 11, 14, 16, 25, 17, 18, 26, 19, 21, 28, 29, 30, 32 and 31 are rejected under 35 U.S.C. 102(a) as being anticipated by Nadir (U.S. Patent Application Publication 2002/0077875).

#### **Regarding claim 1:**

Nadir discloses a material management system including: one or more waste containers adapted to receive and compact waste (abstract); a fullness-measuring subsystem for determining the fullness of one or more waste containers (fig. 1, page 1, section 0007); a computerized scheduling subsystem in communication with the fullness-measuring subsystem for automatically

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determining an optimal time to empty each waste container (fig. 1, page 3, section 0028-0036), based the fullness of the waste container (fig. 1, truck with waste container) and scheduling factors (page 3, section 0028-0030) including customer preferences (page 2, section 0034, no customers want the waste container overflow) and waste hauler limitations (page 2, section 0022), and where the computerized scheduling subsystem (fig. 1, unit computer) stores at least one scheduling factor before determining the optimal time to empty each waste container (page 3, section 0030).



### Regarding claim 15:

Nadir discloses a computerized method for scheduling a pick up time to remove of one or more waste containers, including, for each waste container (abstract, fig. 1), automatically determining a fullness of the waste container (page 2, section 0016); automatically determining when a waste container will a target level of fullness (page 2, section 0022), based on the current fullness and predicted future usage (page 2, section 0012, 0023, page 3, section 0030);

storing at least one scheduling factor selected from the group of scheduling factors consisting of customer preferences and waste hauler limitations (page 3, section 0033-0034, so that container will not overflow); automatically determining an optimal time to remove the waste container (page 2-3, section 0030), based on when the waste container will reach the target level of fullness (page 2, section 0022), customer preferences (page 2, section 0034, no customers want the waste container overflow), and waste hauler limitations (page 2, section 0022); and automatically scheduling the removal of the waste container for the optimal time (page 3, section 0033-0035).

**Regarding claim 24:**

Nadir discloses a computer program, stored on a tangible storage medium, for use in scheduling a pick up time to remove one or more waste containers, the computer program including executable indications that cause a computer to (fig. 1), for each waste container (fig. 1); determine a fullness of the waste container; determine when the waste container will reach a target level of fullness (page 2-2, section 0022), based on the current fullness and predicted future usage (page 2, section 0022); storing at least one scheduling factor selected from the group of scheduling factors consisting of customer preference and waste haul limitation ((page 3, section 0033-0034, so that container will not overflow), determine an optimal time to remove the waste container (page 3, section 0030), based on when the waste container will reach the target level of fullness (page 2, section 0022), customer preferences (page 2, section 0034, no customers want the

waste container overflow), and waste hauler limitations (page 2, section 0022); and schedule the removal of the waste container for the optimal time (page 3, section 0033-0035).

**Regarding claim 3**, Nadir discloses including the optimal time is the latest time that satisfies customer preferences (page 3, section 0034, no customers want the waste container overflow), and waste hauler limitations (page 2, section 0034, the container never overweight, overflow).

**Regarding claim 4**, Nadir discloses a preference that the customer's waste container only reach a certain level of fullness (page 2, section 0022-0023).

**Regarding claim 5**, Nadir discloses a number of drivers available at a specified time (page 3, section 0032, schedule depend on how many truck is on the fleet, ie. each truck is schedule in the fleet).

**Regarding claim 8**, Nadir discloses including a communication subsystem in communication with the computerized scheduling subsystem for notifying the waste hauler when to remove the waste container (page 3, section 0032).

**Regarding claim 11**, Nadir discloses the predicted future usage is based on statistical analysis, performed by the computerized scheduling sub-system, of customer usage patterns including prior recorded fullnesses (page 3. section 0030).

**Regarding claim 14**, Nadir discloses determines when to accomplish the scheduling of the waste container removal, based on the optimal time and one or more waste hauler limitations (page 3, section 0030-0032).

**Regarding claims 16, 25**, Nadir discloses percentage of the fullness (page 2, section 0022).

**Regarding claim 17**, Nadir discloses percentage of the fullness is about 100% (page 2, section 0022).

**Regarding claims 18, 26**, Nadir discloses automatically determining when to accomplish the scheduling of the waste container removal, based on the optimal time and one or more waste hauler limitations (page 2, section 0022-0024).

**Regarding claim 19**, Nadir discloses latest time to accomplish the scheduling (page 2, section 0022-0024).

**Regarding claim 21**, Nadir discloses automatically determining when the waste container will reach the target level of fullness, based on predicted future usage (page 2, section 0022-23), includes analyzing customer usage patterns (page 2, section 0016).

**Regarding claim 28**, Nadir discloses analyze customer usage patterns when determining when the waste container will reach the target level of fullness (page 2, section 0016, 0022).

**Regarding claim 29**, Nadir discloses the customer preferences include one or more preferences selected from the group consisting of: a preference that the customer's waste container only reach a certain level of fullness (page 3, section

0033-34, no customer wants the waste container to overfill); a preference that the customer's waste container not be emptied on certain days of the week; and a preference that the customer's waste container not be emptied during certain hours of the day.

**Regarding claims 30, 32,** Nadir discloses operating hours of waste hauler's dispatcher office (page 2, section 0022).

**Regarding claim 31,** Nadir discloses the customer preferences include one or more preferences selected from the group consisting of a preference that the customer's waste container only reach a certain level of fullness (page 3, section 0033-34, no customer wants the waste container to overfill); a preference that the customer's waste container not be emptied on certain days of the week; and a preference that the customer's waste container not be emptied during certain hours of the day.

### ***Response to Arguments***

6. Applicant's arguments with respect to the amended claims have been fully considered but they are not persuasive.

A. Applicant argues that the prior art does not show the 'determining an optimal time to empty each waste container, based on ...scheduling factor including customer preferences ' (page 11, lines 32 to page 12 lines 2 of the Remarks).

Reminds the applicant that "The use of patents as references is not limited to what the patentees describe as their own inventions or to the problems with which they are concerned. They are part of the literature of the art, relevant for all

they contain." *In re Heck*, 699 F.2d 1331, 1332-33, 216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting *In re Lemelson*, 397 F.2d 1006, 1009, 158 USPQ 275, 277 (CCPA 1968)), including drawing and pictures (*Jockmus v. Leviton*, 28 F.2d 812 (2d Cir. 1928)), and that USPTO personnel are to give claims their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d 1364, 1369, 67 USPQ2d 1947, 1950 (Fed. Cir. 2003).

Nadir discloses 'determining an optimal time to empty each waste container, based on ...scheduling factor including customer preferences' in abstract, where Nadir talks about the schedule factor in the invention including optimal weight removal is the optimal time for waste removal because no over fill or spill outside of the container for any customer (page 3, section 0033) is wanted in the waste collection container (page 3, section 0033-0034). Therefore Nadir discloses 'determining an optimal time to empty each waste container, based on ...scheduling factor including customer preferences' in abstract and page 3, section 0033-0034.

**B.** Applicant continues to argue the prior art fail to disclose 'determining an optimal time to empty each waste container based on .. scheduling factor including ..waste hauler limitation' (page 12 lines 3-5 of the Remarks). Nadir discloses 'determining an optimal time to empty each waste container based on ..

scheduling factor including ..waste hauler limitation' in page 3, section 0030-0034, where Nadir discloses the update information on the waste container affects the schedule pickup (section 0030), and the factor including the waste container to the full capacity without over spill (section 0033), therefore Nadir discloses 'determining an optimal time to empty each waste container based on ..scheduling factor including ..waste hauler limitation' in page 3, section 0030-0034.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tondo (U.S. Patent 5,390,863), discloses a refuse disposal and recycling apparatus for use with a high rise building having a refuse chute, the apparatus including a carousel holding a plurality of refuse bins thereon, including a deposit position directly beneath the open, lower end of the chute, the carousel including a top plate on which the bins are positioned; a rotatable drive assembly for rotatably driving the carousel; an input conveyor for conveying empty refuse bins, onto the carousel; an output conveyor for conveying filled refuse bins from the carousel; a bin level sensor for sensing when a bin is filled to a predetermined level; a timer for setting predetermined time periods; a rotational position sensor for determining a position of the carousel; a control circuit for controlling the rotatable drive to rotate the carousel so as to move an empty bin to the deposit position at the predetermined time

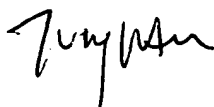


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periods and when a bin at the deposit position is filled to the predetermined level; and a deflection wall positioned above the top plate for forcing filled bins from the top plate to the output conveyor.

**Contact information**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung S Lau whose telephone number is 571-272-2274. The examiner can normally be reached on M-F 9-5:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone numbers for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tung S. Lau

AU 2863, Patent examiner

8/23/06